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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,218	12/28/2000	Darwin A. Engwer	003239.P067	9343
8791	7590	03/31/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			KADING, JOSHUA A	
			ART UNIT	PAPER NUMBER

2661

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,218

Applicant(s)

ENGWER ET AL.

Examiner

Joshua Kading

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 21 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5, 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claims 21 and 23 are objected to because of the following informalities:

Claim 21, lines 8, 13, and 17; and claim 23, lines 10, 14, and 18 state,

5 "information from said". These should be changed to --information message from said--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

10 form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

15 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

20 Claims 1-3, 7-9, and 13-20 are rejected under 35 U.S.C. 102(e) as being
anticipated by Change et al. (U.S. Patent 6,487,406 B1).

Regarding claim 1, Chang discloses "In a wireless network system comprising
first and second sub-networks having respective first and second access points, and a
25 wireless unit associated with first access point and having a current network protocol
address valid for said first sub-network, a method for said wireless unit to obtain a new
network protocol address valid for said second sub-network, comprising:

said wireless unit receiving a message having information from which said wireless unit can determine if said current network protocol address is valid for said second sub-network (col. 5, lines 61-64 where the different BSC is the new or second access point);

5 said wireless unit determining that said current network protocol address is not valid for said second sub network from said information (col. 5, lines 61-67 and col. 6, lines 1-8 and 19-32 where the BS sends a message identifying the current network protocol address in use is not valid for the new area);

10 said wireless unit associating with said second access point for communicating with said second sub-network (col. 6, lines 32-36);

said wireless unit sending a request for said new network protocol address to said second sub-network by way of said second access point (col. 6, lines 37-49); and

15 said wireless unit receiving said new network protocol address from said second sub-network by way of said second access point (col. 6, lines 37-49 whereby updating the address binding information means updating the network protocol address)."

Regarding claim 7, Chang discloses "a wireless unit for communicating with a wired backbone network having first and second of sub-networks by way of respective first and second access points, comprising:

20 a wireless transceiver to communicate with said first and second access points via a wireless medium (figure 1, elements 18 labeled MS);

a memory to communicate current network protocol address valid for said first sub-network (figure 1, where it is inherent in elements 18 that there is a memory for storing data and information about the mobile's address so that when the mobile communicates with elements 16, the source address (as is known in the art) is

5 transmitted with the communication so the BS knows who is sending the message); and

a logic circuit to receive a first message from said first access point by way of said wireless receiver, wherein said first message includes information from which said logic circuit can determine if said current network protocol address is valid for said second sub-network, said logic circuit also capable of transmitting a request for a new

10 network protocol address valid for said second sub-network if said logic circuit determines if said current network protocol address is not valid for said second sub-network (figure 1, where it is inherent that elements 18 contain logic circuits that determine validity of addresses as is supported by col. 5, lines 61-64 where the new BS is the new or second access point, and contain logic circuits that transmit requests for
15 new a address as is supported by col. 6, lines 37-49)."

Regarding claim 13, Chang discloses "an access point, comprising

a logic circuit for transmitting a message to one or more wireless units (figure 1, where it is inherent that elements 16 contain logic circuits that transmit messages for
20 one or more wireless units as can be read in col. 5, lines 61-64),

wherein said message includes information from which said one or more wireless units can determine if a current network protocol address is valid on the sub-network which said access point is on (col. 5, lines 61-64)."

5 Regarding claim 17, Chang discloses "a wireless network system, comprising:
a wired backbone network comprising first and second sub-networks data
coupled together by way of a network device (figure 3, element 34 is the backbone,
elements 40.1, 40.2, 40.3, and 40.4 are sub-networks);
a first access point on said first sub-network (figure 3, element 40.1 has a BSC
10 as an access point); and
a second access point on said second sub-network, comprising a logic circuit for
transmitting a message to one or more wireless units, wherein said message includes
information from which a wireless unit can determine if a current network protocol
address assigned to said wireless unit is valid for said second sub-network (figure 1,
15 element 40.2 has element BSC as an access point; col. 5, lines 61-64 describe the logic
in a access point where it is known in the art and shown in figure 1 that BSC are
attached to BS)."

Regarding claims 2, 8, 14, and 18, Chang discloses the method of claim 1, the
20 devices of claims 7 and 13, and the system of claim 17, "wherein said information
comprises a network protocol address of said second access point (col. 6, lines 37-49

whereby updating the address binding information means updating the network protocol address)."

Regarding claims 3, 9, 15, and 19 Chang discloses the method of claim 1, the
5 devices of claims 7 and 13, and the system of claim 17, "wherein said information
comprises a subnet mask pertaining to said second sub-network (col. 5, lines 48-60)."

Regarding claims 16 and 20, Chang discloses the device of claim 13 and the
system of claim 17, "wherein said message further includes information which said one
10 or more wireless units can make roaming decision based on (col. 6, lines 54-56 where
the PCS registration is a roaming decision in that the decision is only made when the
mobile is roaming)."

Claim Rejections - 35 USC § 103

15 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

20 (a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, 11, and 12 are rejected under 35 U.S.C. 103(a) as being
25 unpatentable over Chang et al.

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Regarding claims 5 and 11, Chang discloses the method of claim 2 and the device of claim 7. Chang lacks "said determining that said current network protocol address is not valid for said second sub-network comprises: said wireless unit determining if it has previously stored said network protocol address; and said wireless unit determining that said current network protocol address is not valid for said second sub network based on information associated with said previously stored network protocol address." Although Chang does not explicitly disclose the address being stored in the wireless unit nor does Chang disclose the determining of the address to be invalid for a second network, Chang does say in col. 5, lines 41-48 and lines 61-64 that the process of examining the information from the BS is suggesting that this information is being compared against some already known factor (i.e. already stored) such as an identifier (address) that allows the MS to make a determination of whether the address is valid or not for the sub-network. It would have been obvious to one with ordinary skill in the art at the time of invention to include the address being stored in the wireless unit and determining the address to be valid for a second network with the method of claim 2 and the device of claim 7 for the purpose of determining what to do next in the communication process. The motivation being that if a new address needs to be obtained the appropriate actions can be taken.

Regarding claims 6 and 12, Chang discloses the method of claim 2 and the device of claim 7. Chang lacks "said determining that said current network protocol address is not valid for said second sub-network comprises: said wireless unit

determining if it has previously stored said network protocol address; and said wireless unit assuming that said current network protocol address is not valid for said second sub network if it has not previously stored said network protocol address." Although Chang does not explicitly disclose the address being stored in the wireless unit nor does

5 Chang disclose the assuming the address to be invalid for a second network, Chang does say in col. 5, lines 41-48 and lines 61-64 that the process of examining the information from the BS is suggesting that this information is being compared against some already known factor (i.e. already stored) such as an identifier (address) that allows the MS to make a determination of whether the address is valid or not for the
10 sub-network. It would have been obvious to one with ordinary skill in the art at the time of invention to include the address being stored in the wireless unit and determining the address to be valid for a second network with the method of claim 2 and the device of claim 7 for the purpose of determining what to do next in the communication process. The motivation being that if a new address needs to be obtained the appropriate actions
15 can be taken.

Claims 4, 10, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Kobayashi et al. (U.S. Patent 5,724,346).

20 Regarding claims 4 and 10, Chang discloses the method of claim 1 and the device of claim 7. Chang lacks "said wireless unit sending a request to release said current network protocol address to said first sub-network." However, Kobayashi

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discloses "said wireless unit sending a request to release said current network protocol address to said first sub-network (figure 9, element 113 where figure 9 is a method executed by a user station or wireless unit as can be read in col. 5, lines 61-62)." It would have been obvious to one with ordinary skill in the art at the time of invention to

5 include the wireless unit sending a request to release the current network protocol address with the method of claim 1 and the device of claim 7 for the purpose of releasing the old connection (Kobayashi, col. 14, lines 21-24). The motivation being that the releasing of the old connection allows that resource to be used for another user.

10 Regarding claim 21, Chang discloses "in a wireless network system comprising first and second sub-networks having respective first and second access points, and a wireless unit associated with said first access point and having a current network protocol address valid for said first sub-network, a method for said wireless unit to determine whether to associate with said second access point, comprising:

15 said wireless unit receiving a second information [message] from said second access point from which said wireless unit can determine if said current network protocol address is valid for said second sub-network (col. 5, lines 61-64 where the different BSC is the new or second access point);

 said wireless unit making a decision whether to associate with said second
20 access point based on...whether said current network protocol address is valid for said second sub-network (col. 5, lines 61-67 and col. 6, lines 1-8 and 19-32 where the BS

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sends a message identifying the current network protocol address in use is not valid for the new area)."

Chang lacks "...said wireless unit receiving a first information [message] from said first access point from which said wireless unit can determine a first signal quality of a wireless communication link between said wireless unit and said first access point;

5 said wireless unit receiving a third information [message] from said second access point from which said wireless unit can determine a second signal quality of a wireless communication link between said wireless unit and said second access point..." and using the signal quality in addition to the address to determine whether
10 said current network protocol address is valid for said second sub-network.

However, Kobayashi discloses "...said wireless unit receiving a first information [message] from said first access point from which said wireless unit can determine a first signal quality of a wireless communication link between said wireless unit and said first access point; said wireless unit receiving a third information [message] from said
15 second access point from which said wireless unit can determine a second signal quality of a wireless communication link between said wireless unit and said second access point (figure 8, element 102 where it is clear that the wireless unit determines signal quality from a first signal and a second signal corresponding to the first access point and the second access point respectively)..." and using the signal quality in
20 addition to the address to determine whether said current network protocol address is valid for said second sub-network (figure 8, element 105 where the address must be

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valid as in Chang but must also have appropriate signal quality as determined by Kobayashi).

It would have been obvious to one with ordinary skill in the art at the time of invention to include the determining signal quality of signals with the rest of the method of the purpose of obtaining the strongest signal for use in communication (Kobayashi, 5 col. 12, lines 53-58). The motivation being that the strongest signal offers a more reliable transmission channel.

Regarding claim 23, Chang discloses "a wireless unit for communicating with a 10 wired backbone network having first and second of sub-networks by way of respective first and second access points, comprising:

a wireless transceiver to communicate with said first and second access points via a wireless medium (figure 1, elements 18 labeled MS);

a memory to communicate current network protocol address valid for said first 15 sub-network (figure 1, where it is inherent in elements 18 that there is a memory for storing data and information about the mobile's address so that when the mobile communicates with elements 16, the source address (as is known in the art) is transmitted with the communication so the BS knows who is sending the message); and

a logic circuit to...receive a second information from said second access point 20 from which said wireless unit can determine if said current network protocol address is valid for said second sub-network (figure 1, where it is inherent that elements 18 contain

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logic circuits that determine validity of addresses as is supported by col. 5, lines 61-64 where the new BS is the new or second access point);

and...determine whether to associate with said second access point based on...whether said current network protocol address is valid for said second sub-network (col. 5, lines 61-67 and col. 6, lines 1-8 and 19-32 where the BS sends a message identifying the current network protocol address in use is not valid for the new area)."

Chang lacks "...receive a first information [message] from said first access point from which said wireless unit can determine a first signal quality of a wireless communication link between said wireless unit and said first access point;

receive a third information [message] from said second access point from which said wireless unit can determine a second signal quality of a wireless communication link between said wireless unit and said second access point..." and using the signal quality in addition to the address to determine whether said current network protocol address is valid for said second sub-network.

However, Kobayashi discloses "...receive a first information [message] from said first access point from which said wireless unit can determine a first signal quality of a wireless communication link between said wireless unit and said first access point; receive a third information [message] from said second access point from which said wireless unit can determine a second signal quality of a wireless communication link between said wireless unit and said second access point (figure 8, element 102 where it is clear that the wireless unit determines signal quality from a first signal and a second signal corresponding to the first access point and the second access point

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respectively)...” and using the signal quality in addition to the address to determine whether said current network protocol address is valid for said second sub-network (figure 8, element 105 where the address must be valid as in Chang but must also have appropriate signal quality as determined by Kobayashi).

5 It would have been obvious to one with ordinary skill in the art at the time of invention to include the determining signal quality of signals with the rest of the device0 for the purpose of obtaining the strongest signal for use in communication (Kobayashi, col. 12, lines 53-58). The motivation being that the strongest signal offers a more reliable transmission channel.

10

 Regarding claims 22 and 24, Chang and Kobayashi disclose the method of claim 21 and claim 23. Chang lacks “said wireless unit makes a decision to associate with said second access point if said second signal quality is above said first signal quality by a factor.” However, Kobayashi discloses “said wireless unit makes a decision to
15 associate with said second access point if said second signal quality is above said first signal quality by a factor (col. 12, lines 53-58 whereby ranking the signals the signal with the best quality will naturally be a factor over the other signal and thus be chosen because it is stronger).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the decision to associate with a second access point
20 based on signal quality with the method of claim 21 and device of claim 23.

Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sturniolo et al. (U.S. Patent 6,154,461) discloses roaming within a LAN. Lynn et al. (U.S. Patent 5,745,699) discloses dynamically assigning addresses in a network. Kingdon et al. (U.S. Patent 6,002,932) discloses updating a wireless units location in various components in a network when the unit is roaming. La Porta et al. (U.S. Patent 6,434,134 B1) discloses mobile IP. Sato (U.S. Patent 6,553,015 B1) discloses establishing a new communication channel in a wireless system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Joshua Kading

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Examiner
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JK
March 26, 2004


KENNETH VANDERPUYE
PRIMARY EXAMINER